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Amendment to the Drawing(s):

The attached sheet of drawing(s) includes changes to Figure 2. This sheet, which includes Figures 1-2, replaces the original sheeting including Figures 1-2. In Figure 2, the numerical designator 32 has been amended to designator 37.

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REMARKS

In the Office Action of April 13, 2006, claims 1-20 are pending. Claims 1, 11, and 19 are independent claims from which all other claims depend therefrom. Claims 1, 3, 11, and 19 are herein amended. Note that claims 1, 3, 11, and 19 are not necessarily herein amended for patentability reasons.

Paragraphs [0024], [0030], [0039], and [0042] and Figure 2 are herein amended to refer to the vehicle control signals by numerical designator "37" instead of "32", since "32" is used to refer to a rear quarter panel. An amended Figure 2 is submitted herewith.

Claims 1-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Luna et al. (U.S. Pat. Pub. No. 2004/0233048 A1) in view of Mattes et al. (U.S. Pat. No. 6,784,792).

Amended claim 1 recites the limitations of a controller that is coupled to a host vehicle and receives sensor signals from magneto-resistive sensors located on the sides of the host vehicle. The controller monitors lane change transition of an object relative to the host vehicle and activates a vehicle system in response to the sensor signals and the lane change transition.

Luna discloses a device for detecting the presence of an object in a blind spot of a vehicle. The device is used as a replacement or alternative to rear view mirrors, blind spot cameras, or other devices that are used by a vehicle driver to see an object, such as a target vehicle, in a blind spot.

Luna does not monitor or detect lane changes of an object or a target vehicle. Luna simply detects the presence of an object in a blind spot.

Also, note that the detection of an object approaching, does not necessarily infer that the object is changing lanes or that lane change detection is being performed. An object may become closer in relationship to a host vehicle and not change lanes.

The Office Action states that Luna fails to suggest a signal for activating a vehicle system in response to a sensor signal. Applicants agree. However, the Office Action states that Mattes provides such teaching. Applicants submit that although Mattes discloses the deployment of an airbag upon the detection of a frontal impact, it would not have been obvious to modify and combine Luna with Mattes to arrive at the present

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invention. Mattes describes the deployment of an airbag upon the detection of an impact. In other words, the system of Mattes is reactive or acts in response to a collision. The present invention and the device of Luna are used to prevent a collision. The system of Luna is used to indicate to a vehicle driver the presence of an object, such that the driver can act to avoid a collision with that object. The present invention is proactive in that it activates a vehicle system to prevent a collision. Also, Mattes is directed to frontal impacts through the use of pressure sensors. The system of Luna is directed to object detection in a blind spot. The present invention is directed to preventing side collisions through the use of magneto-resistive sensors. Thus, not only does Luna and Mattes fail to teach or suggest each and every element of claim 1, there is no motivation provided in either reference for such combination and/or for the necessary modifications needed to arrive at the present invention.

The Office Action states that the system of Mattes activates brakes. Applicants, respectfully, traverse and submit that the system activates an airbag in response to a brake signal. The system of Mattes does not activate brakes in response to an impact or to prevent an impact. See col. 3, lines 19-27, of Mattes.

Amended claim 11 recites the limitations of determining the heading of a host vehicle, sensing magnetic field changes caused by a target object in or near a vehicle destination lane of the host vehicle, and activating a countermeasure in response to the heading and signals that indicate a target vehicle is in or near the vehicle destination lane.

Neither of the stated references teaches nor suggests determining the heading of a host vehicle. Neither of the stated references discloses a system that is aware of the current location of and the intended future lane or destination lane of a host vehicle. Although Luna detects a vehicle within a blind spot, Luna is unaware of whether that vehicle is in or near a destination lane of a host vehicle. As such, neither reference teaches or suggests performing a countermeasure in response to such information. Thus, the relied upon references also fail to teach or suggest multiple limitations of claim 11.

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Claim 19 recites the limitations of a controller that is coupled to a host vehicle and detects a target vehicle passing the host vehicle in response to multiple sensor signals. The controller generates a signal for activating a vehicle system in response to the passing. In so doing, the claimed system is again proactive. Neither reference discloses such detection and activation.

Referring to MPEP 706.02(j) and 2143, to establish a *prima facie* case of obviousness the prior art reference(s) must teach or suggest all the claim limitations, see *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Thus, since Luna and Mattes alone or in combination fail to teach or suggest each and every element of claims 1, 11, and 19, Applicants submit that claims 1, 11, and 19 are novel, nonobvious, and are in a condition for allowance. Also, since claims 2-10, 12-18, and 20 depend from claims 1, 11, and 19, respectively, they too are novel, nonobvious, and are in a condition for allowance for at least the same reasons.

In light of the amendments and remarks, Applicants submit that all the rejections are now overcome. The Applicants have added no new matter to the application by these amendments. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, the Examiner is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

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